

REEL # 15

KORDOBONSKIY, AI

UDC: 621.316.56

USSR

KORDONOVSKIY, A. I., SHESTOPALOV, A. M.

"A Keyboard Device"

USSR Author's Certificate No 308466, filed 16 Dec 69, published 3 Sep 71
(from RZh-Avtomatika, Telemekhanika i Vychislitel'naya Tekhnika, No 7,
Jul 72, Abstract No 7A25 F)

Translation: A keyboard device is proposed which contains single-armed L-shaped levers with keys. On the lever arms on the side opposite the keys are permanent magnets under which are hermetically sealed, magnetically controlled contacts. Also incorporated in the keyboard device is an interlock which is connected to the levers. To reduce the key-depression effort, the interlock is made in the form of an elastic closed reservoir which is located beneath the row of key levers and is filled with a fluid in such a way that there is a space free of fluid and equal to the volume of fluid displaced by depression of a single key to a depth equal to at least half its travel. Two illustrations.

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UDC 62-52

USSR

KORDUN, N. N., IVANENKO, L. A.

"Method of Multipoint Automatic Regulation of Parameters of Objects With Delay"

USSR Author's Certificate No. 251051, Filed 26/05/66, Published 22/01/70
(Translated from Referativnyy Zhurnal Avtomatika, Telemekhanika i Vychislitel'naya Tekhnika, No 12, 1970, Abstract No. 12 A266 P by V. D.)

Translation: Methods are known for multipoint automatic regulation of parameters of objects with rigid programmed control by dynamically identical objects with series connection to regulating devices. The method suggested differs from known methods in that it is based on queueing theory and allows the accuracy of regulation of parameters of objects with various dynamic characteristics to be increased while reducing the number of regulators required. The selection of requirements for servicing after one of the regulators becomes free is performed in the order of arrival of requests. The frequency of connection of devices to the regulating devices is determined by the dynamic characteristics of the regulation objects, the

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UDC 62-52

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KORDUN, N. N., IVANENKO, I. A., USSR Author's Certificate No. 251051, Filed 26/05/66, Published 22/01/70, (Translated from Referativnyy Zhurnal Avtomatika, Telemekhanika i Vychislitel'naya Tekhnika, No 12, 1970, Abstract No. 12 A266 P by V. D.)

regulating device being busy in the regulation system only for the duration of the control action.

2/2

1/2 030 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--SOLUBILITY OF ANTIOXIDANTS IN CRYSTALLINE POLYETHYLENE -U-
AUTHOR--(04)-GROMOV, B.A., KORDUNER, N.YE., MILLER, V.B., SHLYAPNIKOV,
YU.A.,
COUNTRY OF INFO--USSR
SOURCE--DOKL. AKAD. NAUK SSSR 1970, 190(6), 1381-2 (PHYS CHEM)
DATE PUBLISHED--70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--SOLUBILITY, POLYETHYLENE, ANTIOXIDANT ADDITIVE, ANILINE,
AMINE, BENZENE DERIVATIVE, CRYSTAL, IR SPECTROSCOPY
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--2000/0710 STEP NO--UR/0020/70/190/006/1381/1382
CIRC ACCESSION NO--A70124380
UNCLASSIFIED

2/2 030

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--ATO124380

ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. THE SOLY. OF PH SUB2 NH,
PHENYL, BETA, NAPHTYLAMINE, AND CYCLOHEXYLBENZENE (USED AS A MODEL
COMPD.) IN POLYETHYLENE (I) CONTG. VARIOUS AMTS. OF CRYST. PHASE (DETD.
BY IR SPECTROSCOPY) DOES NOT DEPEND ON ITS CRYSTALLINITY, EXCEPT THAT
WHEN THE CRYSTALLINITY APPROACHES 100PERCENT, THERE IS A LOWERING OF
SOLY. THE SOLY. OF ANTIOXIDANTS IN THE CRYST. PHASE IS PROBABLY DUE TO
MICROFISSURES. THERE IS A SOLY. INCREASE WITH TEMP. IN THE
30-60DEGREES RANGE.

FACILITY: INST. KHIM. FIZ., MOSCOW, USSR.

UNCLASSIFIED

USSR

KORDYSH, Ye. I.

"Adsorption of N-methylpyrrolidone from Gases by Activated Carbon"

Khim. Tekhnologiya. Nauch.-proyizv. sb. [Chemical Technology. Scientific and Production Collection], No 2(56), 1971, pp 13-15 (Translated from Referativnyy Zhurnal, Khimiya, No 3, 1972, Abstract No 3 B1493 from the Resume).

Translation: Results are presented of experimental studies designed to determine the static capacity of activated carbon for methylpyrrolidone and the length of the operating carbon layer.

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USSR

BAKIYEV, S. A., ~~KORDYUKOVICH, V. O.~~, KRYUKOVA, L. K., MURAV'YEVA, V. V., and
SOROKIN, A. A., Scientific Research Institute of Nuclear Physics of Moscow State
University imeni M. V. Lomonosov

"Investigation of Radioactive Decay of Neutron Deficient Isotopes of Pt, Ir, and Os"

Moscow, Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, Vol. 34, No. 1, Jan 70,
pp 59-61

Abstract: The γ -radiation of neutron deficient isotopes Pt^{189} , Pt^{188} , Ir^{189} and Os^{185} formed by bombarding gold with protons on the synchrocyclotron of the Joint Institute of Nuclear Research was investigated on a Ge(Li)-spectrometer. A chemical method was used to separate the disintegration products of the gold. The energies and relative intensities of the γ -rays are presented in tables for each of the isotopes. The experimental values obtained are compared with data of other authors. In the case of Pt^{189} , it was difficult to separate the lines of Pt^{189} in Pt^{191} , so only upper limits of the intensity were given for γ -rays of 91 and 94 kev. The discrepancy in the intensities of the lines 94, 140, and 300 kev with data of Fourier, et al were beyond the limits of the experimental error; it was impossible

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USSR

BAKIYEV, S. A., et al, Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, Vol. 34,
No. 1, Jan 70, pp 59-61

to explain this divergence by the possible contribution of lines caused by the presence of other isotopes in the platinum fraction. Explanations of certain other discrepancies in the measurements are offered.

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AA0038357

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Kordyukov V. M.
UR 0482

1-70

Soviet Inventions Illustrated, Section I Chemical, Derwent,

239707 ANABAENA VARIABILIS K-1 is a new more effective strain of blue-green algae *Anabaena variabilis* which fix atmospheric nitrogen. When cultured in a nutrient medium not containing nitrogen, the strain K-1 can fix up to 11 mg of nitrogen per litre in a day. (compared with 4.4 mg/l day of other strains of this species) the strain K-1 was found in the river Ush in Zhilov district. Barrel-like grainy cells have a width of 4.2 - 5 μ and a length of 2.8 - 3 μ . Oval spores are associated with heterocysts. Blue-green colours accumulate on the surface of the medium. The strain can be cultivated under stationary

aerobic conditions or with forced supply of air enriched in CO₂. In the first case the pH changes from 6.5 to 9, in the second from 6.5 to 7.0. The optimum temp. is 33-35°C. A suitable liquid

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AA0038357

medium contains (in mg./ml): KH_2PO_4 , 20, MgSO_4 , 50, FeSO_4 , 10, Triton B 16, CaCO_3 , 750 and minor amounts of micronutrients including $\text{Cu}(\text{NO}_3)_2$, CuSO_4 , ZnSO_4 , MnSO_4 , H_3BO_3 and ammonium molybdate. A wide range of amino acids are produced, including cystine, lysine, glutidine, arginine, etc. The cultivation can be carried out in enclosed systems or as "green fertilizer" in rice fields. 23.2.67. as 1139173/30-15, RUBENCHIK, L.I. et al. (11.8.69) Bul. 11/18.3.69. Class 45f, Int. Cl. A Olg. 1

LD

AUTHORS: Rubenchik, L. I.; Kordyum, V. A.; Smirnova, R. N.; Zharova, L. G.; Kosenko, L. V.; Ratushnaya, M. Ya.; Kirillova, V. S.

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19731486

USSR

UDC 576.8.097.5

KORDYUM, V. A., Molecular Biology Sector, Institute of Microbiology and Virology,
Academy of Sciences USSR

"A Possible Mechanism of Antibody Formation"

Moscow, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 10, 1972,
pp 38-42

Abstract: The author's theory of antibody formation assumes the existence of a genetically determined inductor of transcription errors, participation of antigen in the final stage of transfer, and transmission of information from RNA to DNA. According to the theory, an inductor of transcription errors is located in the region of the genes that code the formation of immune gamma globulins. The heterogeneous i-RNA formed, which code heavy chains, are transferred to the end only when the antigenic molecule conforms to the protein (consisting of both the given polypeptide chain and light chains) created on the polysome. The i-RNA released from the ribosomes then functions as a matrix for the synthesis of DNA. The resulting second-generation DNA has the sequence of bases that corresponds to the antibody produced in response to the injection of antigen. This DNA can either be "built into" the chromosome or act as an episome, thereby making possible the synthesis of specific antibodies.

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USSR

UDC 62-531.4

ZAKIROV, A.S., KORELOV, I.V., LANTSMAN, B.I., LESKOV, V.G.

"Electromechanical Tracking System"

USSR Author's Certificate No 263715, Filed 4/02/69, Published 15/06/70
(Translated from Referativnyy Zhurnal Avtomatika, Telemekhanika i Vychislitel'naya Tekhnika, No 12, 1970, Abstract No 12 A278P)

Translation: An electromechanical tracking system is suggested, containing an amplifier, motor with reducing gear, tachometer generator, angle sensor, and load. The system is distinguished by the fact that in order to increase the accuracy, it also contains an angle sensor connected to the input of the amplifier, an electromagnetic switching clutch connecting the load axis either to the main angle sensor or to the supplementary sensor, and a commutator, the normally closed contact of which is connected into the circuit connecting the point of addition of the input signal and the feedback signal from the main angle sensor to the input of the amplifier, while the normally open contact is connected in the power supply circuit of the electromagnetic clutch winding.

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USSR

UDC: 8.74

KOREL'SKAYA, T. D., PADUCHEVA, Ye. D.

"On the Formal Apparatus of Syntactic Transformations"

V sb. Issled. po mat. lingvist. i inform. yazykam (Research on Mathematical Linguistics and Information Languages--collection of works), Moscow, "Nauka", 1972, pp 17-58 (from RZh-Kibernetika, No 8, Aug 72, Abstract No 8V704)

Translation: A syntactic representation of a sentence includes the following three objects: 1) a tree of relations of the sentence in which the junctions are marked by symbols of autonomous lexemes with indices of "semantically" inflectional characteristics while the branches are marked by symbols of types of syntactic relations; 2) information on anaphoric relations (on coreferentiality); 3) information on the linear order of the junctions of the tree, i. e. on word order. An arbitrary syntactic representation is considered which includes (in addition to the components named above): the lexical characteristics of the junctions; information on semantic relations; information on the syntactic role of a given junction.

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USSR

KOREL'SKAYA, T. D., PADUCHEVA, Ye. D., Issled. po mat. lingvist. i inform. yazykam, Moscow, "Nauka", 1977, pp 27-58

(... g. whether the word "which" is directly or indirectly subordinate to a given word), etc. Transformation on the set of syntactic representations "is described directly as a certain set of changes in the syntactic representations, rather than as a substitution" (p 39); such a transformation is given by the pair <condition of applicability, and the transformation proper>, where the condition of applicability is a cliché (that which must be incorporated into the syntactic representation to be transformed) and the negative context of the cliché (an indication of what is not to be in the syntactic representation being transformed). Five elementary transformations are distinguished: 1) addition of a junction; 2) removal of a junction; 3) rebalancing a junction with its sub-tree; 4) change of linear order; 5) change of the relation of anaphorism. I. Mel'chuk.

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1/2 017 UNCLASSIFIED PROCESSING DATE--11SEP70
TITLE--USE OF INDUSTRIAL APPARATUS TO STUDY THE PREPARATION TECHNOLOGY FOR
HIGH INDEX AVIATION OILS FROM UST BALKYKSKII PETROLEUM, AND A STUDY OF
AUTHOR--KORELYAKOV, L.V., KVETKOV, B.A., SIDORSKAYA, L.F.,

COUNTRY OF INFO--USSR *K*

SOURCE--NEFTEPERERAB. NEFTEKHIM. (MOSCOW) 1970, (1), 12-14

DATE PUBLISHED-----70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--TEST METHOD, PHYSICS LABORATORY INSTRUMENT, QUALITY CONTROL,
INDUSTRIAL PRODUCTION, AIRCRAFT LUBRICANT, LUBRICATING OIL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--1989/1147

STEP NO--UR/0318/70/000/001/0012/0014

CIRC ACCESSION NO--AP0107636

UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--11SEP70

2/2 017

CIRC ACCESSION NO--AP0107636

ABSTRACT/EXTRACT--(U) GP-O- ABSTRACT. HIGH GRADE AVIATION OIL WITH
VISCOSITY INDEX LARGER THAN OR EQUAL TO 100 WAS OBTAINED BY APPLYING
ROUTINE METHODS, BUT USING SUITABLE PROPORTIONS OF SOLVENTS FOR
DEASPHALTING, SELECTIVE REFINING, AND DEWAXING. CHARACTERISTICS OF THE
OILS AND EXPTL. RESULTS WERE REPORTED.

UNCLASSIFIED

Refractory Materials

USSR

UDC 666.764:621.928.37

(5)

MARANTS, A. G., GUTMAN, V. I., All-Union Institute of Refractories; FRANTOVA, E. S., ZEGER, I. Ye., VASILIVITSKIY, A. V., KREYDLIN, P. N., All-Union Scientific Research, Planning, and Design Institute of Metallurgical Machinery; ROMANOVSKIY, L. B., KOREN, L. N., and KOSTYRYA, Yu. F., Dnepropetrovsk Metallurgical Institute

"Prospects of the Application of the Melting Cyclone for the Production of Melted Refractories"

Moscow, Ogneupory, No 5, 1973, pp 50-54

Abstract: The process of cyclone melting was investigated with a view to produce melted refractories of the magnesium-spinel and brazilite-corundum types. Experiments were carried out at the Institute of the Problems of Material Science of the Academy of Sciences UkrSSR. The experiments indicated the possibility of applying melting cyclones with the use of a blast enriched with oxygen for the production of cast fused refractories with a 1800-1900°C fusion temperature in which the melt aggregates in the warming forehearth for aftercasting into molds. The dust removal in cyclone melting does not exceed 5%, thus ensuring the production of a melt which is close to the initial charge in chemical composition. The optimum content of oxygen in the blast at an approximate natural gas consumption of 1.5 nm³/kg charge was determined.

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USSR

MARANIS, A. G., et al., Ogneupory, No 5, 1973, pp 50-54

The properties of the produced materials are analyzed. Four figures, three tables, three bibliographic references.

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USSR

UDC: 632.95

KORMACHEV, V. V., TSIVUNIN, V. S., ZARETSKIY, Ya. S., ~~KOBEIN, I. A.~~

"A Method of Synthesizing Dialkyl (Monothiodialkyl) Esters of β -Methyl- γ -chloropropenylphosphonic Acid"

USSR Author's Certificate No 308013, filed 27 Dec 68, published 7 Sep 71
(from RZh-Khimiya, No 15, Aug 72, Abstract No 15N495P)

Translation: Compounds of the general formula $RO(RX)P(O)CH=C(Me)CH_2Cl$ (I) (R = alkyl, X=O, S) with insecticidal activity and low toxicity for warm-blooded animals are synthesized by reacting β -methyl- γ -chloropropenylphosphonic (thiophosphonic) acid chlorides with alcohols in the presence of tertiary amines. Nineteen and eight tenths grams of $Cl_2P(O)CH=C(Me)CH_2Cl$ is added with cooling to 7.9 grams of absolute ethanol, 13.6 grams of pyridine and 75 ml of absolute ether. The liberated pyridine hydrochloride is filtered, the filtrate is vacuum distilled, and 11.8 grams of I is isolated (R = Et, X = O), yield 55%, melting point 129-31°/3, n_D^{20} 1.4602, d_4^{20} 1.1954. Other compounds of general formula I are obtained analogously (given are R, X, yield in %, melting point in °C/mm, n_D^{20} and d_4^{20}): n-Pr, O, 46.5, 140-1/4, 1.4611, 1.1289; n-Bu, O, 43.9, 140-2/1.0, 1.4629, 1.0706; Et, S, 40.0, 114-6/0.5, 1.5192, 1.2461; n-Pr, S, 41.2, 124-6/0.5, 1.5180, 1.1917; n-Bu, S, 39.3, 136-7/0.3, 1.5129, 1.1501; n-C₅H₁₁, S, 4.12, 157-9/0.5, 1.4995, 1.0949.

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Organophosphorous Compounds

UDC 546.322'26.118.07

USSR

KORMACHEV, V. V., TSIVUNIN, V. S., ZARETSKIY, YA. S., and KORIN, N. A.

"A Method of Making Dialkyl (Monothiodialkyl) Esters of β -Methyl- γ -Chloropropenylphosphonic Acid"

Moscow, Otkrytiya, izobreteniya, promyshlennyye obratzyy, tovarnyye znaki, No 21, Jul 71, Author's Certificate No 308013, Division C, filed 27 Dec 68, published 1 Jul 71, p 79

Translation: This Author's Certificate introduces a method of making dialkyl (monothiodialkyl) esters of β -methyl- γ -chloropropenylphosphonic acid. As a distinguishing feature of the patent, β -methyl- γ -chloropropenylphosphonic (thiophosphonic) acid chlorides are interacted with alcohols in the presence of tertiary amines in an inert organic solvent with subsequent isolation of the goal product by conventional methods.

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USSR

UDC 547.341

KORMACHEV, V. V., TSIVUNIN, V. S., KOREN, N. A., Kazan' Chemical-
Technological Institute imeni S. M. Kirov, Kazan, Ministry of
Higher and Secondary Specialized Education RSFSR

"Reaction of Phosphorus Pentachloride With Ethylmethallyl Ether"

Leningrad, Zhurnal Obshchey Khimii, Vol 40, No 6, Aug 70,
pp 1711-1715

Abstract: Reaction of phosphorus pentachloride with ethylmethallyl ether in benzene at 0 - -5° gives a complex which may be decomposed with SO₂ to yield a dichloroanhydride of β-methyl-γ-chloro-δ-gthoxypropenylphosphonic acid (I), b.p. 115-117°/2mm, d₄²⁰ 1.3117, n_D²⁰ 1.4862. When (I) is reacted with sodium alkoxides, dialkoxyposphone-β-methylethylalkylacryl acetals are obtained. Heating these acetals for 50 hours at 100° with isoprene, an equimolar amount of water, traces of hydrochloric acid, and hydroquinone does not yield any products of the expected diene synthesis, only β-dialkoxyposphane-α-methylacroleins. Reaction of the latter products with 2,4-dinitrophenylhydrazine gives the corresponding 1/1 hydrazones.

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USSR

UDC 547.341

KORMACHEV, V. V., TSIVUNIN, V. S., KOREN, N. A., Kazan' Chemical-Technological Institute imeni S. M. Kirov, Kazan, Ministry of Higher and Secondary Specialized Education RSFSR

"Reaction of Phosphorus Pentachloride With Metallyl Chloride"

Leningrad, Zhurnal Obshchey Khimii, Vol 40, No 9, Sep 70, pp 1989-1992

Abstract: Phosphorus pentachloride reacts in the cold with metallyl chloride forming a complex, which on treatment with SO₂ or H₂S converts to dichloroanhydrides of β -methyl- γ -chloropropenylphosphonic (I) or thiophosphonic acids. Chlorination of (I) gives a dichloroanhydride of β -methyl- α , γ -dichloropropenylphosphonic acid. The preceding reactions give several esters of β -methyl- γ -chloropropenylphosphonic and thiophosphonic acids, the physical properties of which are tabulated. Dialkyl ethers and the dichloroanhydride of (I) react with sodium alkoxide forming dialkyl esters of β -methyl- γ -alkoxypropenylphosphonic acids. Reacting the dialkyl esters of (I) with diethylamine give dialkyl esters of β -methyl- γ -diethylamino-propenylphosphonic acid.

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USSR

UDC 547.361.341.297.07

KORMACHEV, V. V., TSIVUNIN, V. S., ZARETSKIY, YA. S., and KOREN', N.A.

"A Method of Synthesizing β -Methyl- γ -chloropropenylphosphonyl (Thiophosphonyl) Dichlorides"

Moscow, Otkryia, Izobreteniya, Promyshlennyye Obraztzy, Tovarnyye Znaki, No 18, 1970, Author's Certificate No 271517, Filed 27 Dec 68, p 24

Abstract: This Author's Certificate introduces a method of synthesizing β -methyl- γ -chloropropenylphosphonyl (thiophosphonyl) dichlorides. As a distinguishing feature of the patent, phosphorus pentachloride is interacted with methallyl chloride with subsequent decomposition of the resultant adduct by sulfur dioxide or hydrogen sulfide with cooling and isolation of the goal product by conventional methods. 2. The method described in (1) is distinguished by cooling to $-5 - 0^{\circ}\text{C}$.

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1/2 016 UNCLASSIFIED PROCESSING DATE--02OCT70
TITLE--THERMAL ELECTROMOTIVE FORCE OF ZINC ANTIMONIDE DIFFUSION LAYERS -U-
AUTHOR--KUREN, N.N. K
COUNTRY OF INFO--USSR
SOURCE--VESTSI AKAD. NAVUK BELARUS. SSR, SER. FIZ.-MAT. NAVUK 1970, (1),
127-8
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--PHYSICAL DIFFUSION, ELECTROMOTIVE FORCE, ANTIMONIDE, ZINC
COMPOUND, ZINC
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1990/0766 STEP NO--UR/0428/70/000/001/0127/0128
CIRC ACCESSION NO--AP0108967
UNCLASSIFIED

2/2 016

UNCLASSIFIED

PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0108967

ABSTRACT/EXTRACT--(U) GP-G- ABSTRACT. THE INTEGRAL THERMAL EMF.,

EPSILON, OF FILMS 80-100 MU THICK OF ZNSB, OBTAINED BY DIFFUSION OF ZN VAPOR INTO SB, WAS DETD. BY A METHOD DESCRIBED PREVIOUSLY (KOREN, 1967).

AT 20-300DEGREES, THE PLOT EPSILON VS. TEMP. CONSISTED OF 2 STRAIGHT LINES INTERSECTING AT 200DEGREES. THE SLOPE OF THE LINE AT GREATER THAN 200DEGREES WAS LOWER. THE THERMAL COEFF. OF EPSILON WAS 400 MUV PER DEGREE.

UNCLASSIFIED

Parasitology

USSR

UDC 596.895.421

KORENEBERG, E. I., Institute of Epidemiology and Microbiology imeni N. F. Gamaleya, Academy of Medical Sciences USSR, Moscow

"Experience With Detailed Large-Scale Mapping of the Distribution of Taiga Ticks"

Leningrad, Parazitologiya, No 3, 1973, pp 238-243

Abstract: The author developed a rapid method for detailed large-scale mapping of taiga ticks in an area covering several square kilometers without a preliminary survey. It involves the precise and simultaneous recording of the sites of detection of the ticks on many parallel transects cutting across the area under study. When the method was applied in 1968 to forests in the Mala-Pargin rayon of the Udmurt ASSR where Ixodes persulcatus abounds, the resulting cartograms revealed its distribution to be quite uneven, for tracts where some of the arthropods was found bordered on others where they were quite numerous. In addition, similar tracts and even different sections within the same tract varied considerably with respect to the frequency of occurrence of the tick and, consequently, its level of abundance.

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USSR

UDC 911.3:616.989.25(470.342)

PCHELKINA, A. A., KORENBERG, E. I., ZEMSKAYA, A. A., SUTOROVA, A. G., and KOVALEVSKIY, Yu. V.

"A Study of the Virus-Carrying Properties of Ixodes persulcatus P. Sch. in Tickborne Encephalitis Foci of Forests in the Southern European Taiga"

V sb. Vtoroye Acarologicheskoye soveshchaniye. Ch. 2. Tezisy dokl. (Second Acarological Conference. Part 2. Theses of Reports -- collection of works) Kiev, "Nauk. dumka," 1970, pp 96-97 (from RZh-Meditsinskaya Geografiya, No 4, Apr 71, Abstract No 4.36.59)

[No abstract]

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1/2 005 UNCLASSIFIED PROCESSING DATE--11SEP70
TITLE--SULFUR DIOXIDE BY COMBUSTION OF SULFUR CONTAINING SUBSTANCES IN
FLUIDIZED BEDS -U-
AUTHOR--TERNOVSKAYA, A.N., SHPUNT, S.YA., SHVARTSSHEIN, YA.V., MALETS,
A.M., KORENBERG, YA.G.
COUNTRY OF INFO--USSR

SOURCE--GER. 1,467,096

DATE PUBLISHED--26MAR70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--SULFUR OXIDE, FLUIDIZED BED, CHEMICAL PATENT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1989/1863

STEP NO--GY/0000/70/000/000/0000/0000

CIRC ACCESSION NO--AA0108197
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UNCLASSIFIED

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UNCLASSIFIED

PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AA0108197

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A PROCESS IS DESCRIBED FOR PRODUCING SO SUB₂ FROM ELEMENTAL S OR S,CONTG. MATERIALS UTILIZING A DOUBLE FLUIDIZED BED ARRANGEMENT WHEREBY BURNING TAKES PLACE IN THE LOWER BED WITH THE TEMP. REACHING 700-1000DEGREES FOLLOWED BY COOLING OF THE GASES IN THE UPPER BED TO 350-450DEGREES. WHEN S IS USED, THE LOWER BED CONSISTS OF AIR FLUIDIZED INERT MATERIAL (E.G., QUARTZ SAND, CHAMOTTE); WHEN S,CONTG. MATERIAL (E.G., PYRITES) IS USED, THE MATERIAL ITSELF CONSTITUTES THE FLUIDIZED MEDIUM. THE UPPER BED CONSISTS OF HEAT ABSORBING MATERIALS.

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UNCLASSIFIED

USSR

UDC 621.371.029.6

RZHEVSKIY, V. V., KORENBERG, Ye. B., ORLOVSEKAYA, E. D., and
AZBEL', M. D.

"Experimental Investigation of the Propagation of UHF Radio Waves
in Tunnels and Mine Shafts"

Moscow, V sb. X Vses. konf. po rasprostr. radiovoln. Tezisy dokl.
Sekts. 6 (Tenth All-Union Conference on the Propagation of Radio
Waves; Report Theses; Section 6--collection of works) "Nauka,"
1972, pp 68-72 (from RZh--Radiotekhnika, No 10, 1972, Abstract No
10A393)

Translation: The investigation was conducted in tunnels of the sub-
way, lined with tubing (circular cross section) and in mine shafts
(rectangular cross section), sunk in gypsum strata. Results of the
measurements showed that in rectilinear paths, the attenuation is
comparatively low; this permits use of UHF waves for the transmis-
sion of information along shafts. In paths with turns, there is a
substantial addition to the weakening of the field, and retransla-
tors are needed for the transmission of information. Four illus-
trations. N. S.

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USSR

UDC 621.371.029.6

RZHEVSKIY, V. V., KORENBERG, Ye. B., ORLOVSKAYA, E. D., and
AZBEL', M. D.

"Propagation of Broad-Band UHF Signals in Tunnels and Shafts"

Moscow, V sb. X Vses. konf. po rasprostr. radiovoln. Tезисы докл.
Sekts. 6 (Tenth All-Union Conference on the Propagation of Radio
Waves; Report Theses; Section 6--collection of works) "Nauka,"
1972, pp 64-67 (from RZh--Radiotekhnika, No 10, 1972, Abstract
No 10A392)

Translation: Experiments investigating the passage of pulse signals
in the tunnels of the Moscow subway are described. Triangular
radio pulses $0.03 \mu\text{s}$ wide at half value were used, with a period
of repetition at $200 \mu\text{s}$, on a carrier frequency of 2200 MHz . To
detect distortions of broad-band signals, television images were
transmitted along shafts and in the tunnel of the subway. Results
of the experiments showed that the distortion of the pulse fronts
did not exceed $0.02 \mu\text{s}$; the multibeam nature of the propagation
has no effect on the accuracy of TV signal transmission; the qua-
lity of the TV transmission is good. Three illustrations, bil-
liography of one. N. S.

1/1

USSR

UDC: 621.371.33

BLAGOV, G. I., KORENBERG, Ye. B., and AULIKOVSKIY, B. I.

"Experimental Investigation of the Radio Wave Propagation at 200 MHz in Tunnels"

V sb. Shakhtn. radiosvyaz' (Mining Radio Communication--collection of works) Moscow, 1970, pp 11-17 (RZh-Radiotekhnika, No. 3, March 71, Abstract No. 3A240)

Translation: The results are given of experiments on radio wave propagation in tunnels at frequencies of 200 MHz. The signal attenuation is 20 dB at a distance of 100 m. Four illustrations. V. Ch.

1/1

USSR

UDC: 621.371.35

DUDCHENKO, O. I. and KORENBERG, Ye. B.

"Signalling by a Variable Low-Frequency Current in Mines"

V sb. Shakhtn. radiosvyaz' (Mining Radio Communication--collection of works) Moscow, 1970, pp 18-26 (from RZh-Radiotekhnika, No. 3, March 71, Abstract No. 34239)

Translation: Computational estimates of signalling with variable low-frequency current are conducted. This type of signalling is superior to high-frequency forms of radio communication with high conductivity of the massif, where high frequency currents contend with high attenuation. Four illustrations. V. Ch.

1/1

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USSR

UDC: 621.396.677

KORENBERG, Ye. B.

~~---radiation~~ "Radiation From a Conductor Lying on the Surface of a Massif"

V sb. Fiz. i khim. issled. gorn. porod (Physical and Chemical Study of Rocks
--collection of works), Moscow, 1969, pp 99-103 (from EZh-Radiotekhnika, No
11, Nov 70, Abstract No 11B59)

Translation: The emission produced by a line antenna which lies on a rock
massif is determined by the method of mirror images. It is shown that the
main part of the emission from such an antenna is directed into the massif.
A. K.

1/1

USSR

UDC 616.988.25-022.395.42-084.4(470.51)

KUCHERUK, V. V., KORENBERG, YE. I., PANFILOVA, S. S., SHULEPOVA, T. G., SMIRNOV, A. V., and LEBEDEV, I. P.; Laboratory of Medical Zoology, Institute of Epidemiology and Microbiology imeni N. F. Gamaleya, Academy of Sciences USSR, Moscow, and Republic Sanitary Epidemiological Station, Udmurt ASSR, Izhevsk

"Recent Results in the Control of Tickborne Encephalitis in the Udmurt ASSR"

Moscow, Meditsinskaya Parazitologiya i Parazitarnyye Bolezni, Vol 40, No 3, May/Jun 71, pp 275-283

Abstract: The annual incidence of tickborne encephalitis is high in the Udmurt ASSR. In some years, it was 10% of all recorded diseases. Data on the disease as it occurred from 1956 to 1965 were studied. The results of these studies led to a sharp reduction in incidence of the disease in the Udmurt ASSR. Statistical data on the disease level are presented in bar graphs for various regions over the 10-year period. Various forests in the area were characterized by their degree of epidemic danger, based on preliminary mapping of the occurrence and recurrence of infections. Subsequently, tick-extermination areas (amounting to 7% of the entire forest lands) were set aside and ticks eliminated by aerial spraying. Gamma-globulin prophylaxis and vaccination are recommended for the population living in areas in which tick eradication is difficult to achieve or impractical.

1/1

- 44 -

USSR

KORENBLUM, I. YA. and SHENDER, Ye. F., Institute of Nuclear Physics imeni
B. P. Konstantinov, Academy of Sciences, USSR

"The Influence of Nonmagnetic Admixtures Upon the Curie Temperature of Dilute
Ferromagnetic Alloys"

Moscow, Pis'ma v Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki (Letters to
the Zhurnal Eksperimental'noy i Tekhnicheskoy Fiziki), Vol 17, No 10, 20 May 73,
pp 594-596

Abstract: It is shown that when a small concentration of nonmagnetic admixtures
is introduced into dilute ferromagnetic alloys of the PdFe type, the Curie
temperature can be either increased or decreased within wide limits, depending
upon the properties of the admixtures. It is also shown that measurement of the
Curie temperature can provide information as to the state of the nonmagnetic
admixtures in the alloy. 5 references.

1/1

- 63 -

USSR

KORENBLUM, I. Ya., and LAZARENKO, Yu. P. (Joffe Physicotechnical Institute of the USSR Academy of Sciences, Leningrad)

"Electron-Magnon Interaction and the Kinetic Effects in Degenerate Ferromagnetic Semiconductors"

Leningrad, Fizika Tverdogo Tela, May 1971, pp 1431-1437

Abstract: The attenuation of electrons and magnons in a degenerate ferromagnetic semiconductor with a wide conduction band caused by processes involving two magnons was determined. It was assumed that the Fermi energy was less than the exchange energy of the s-d interaction, so that single-magnon interaction is ineffective. A system of kinetic equations for the electrons and magnons was derived by the method of Konstantinov and Perel' (ZhETF, 39, 197, 1960). The electron relaxation time and the thermoelectromotive force of the electron drag by magnons were calculated. The thermoelectromotive force is a nonmonotonic function of the temperature. If long-wave magnon relaxation occurs mainly with magnons and electrons, then at the maximum the thermoelectromotive force can exceed k_B/e .

1/1

- 30 -

USSR

UDC: 621.397.687:681.84.083.8

KORENBLYM, M. G.

"Synthesis of Video Amplifiers With Feedback"

Tr. VNII magnitn. zapisi i tekhnol. radioveshch. i televiz. (Works of the All-Union Scientific Research Institute of Magnetic Recording and of Radio Broadcasting and Television), 1970, vyp. 9 (19), pp 105-119 (item RZh-Radiotekhnika, No 12, Dec 70, Abstract No 126138)

Translation: The required image stability in magnetic recording is provided by compensation of time distortions. For this purpose, a video channel is needed which consists of several stages with maximally flat amplitude-frequency response, which is achieved by means of deep negative feedback. The author outlines a procedure for synthesizing such amplifiers with the use of inverse radical hodographs for amplitude-frequency and phase-frequency responses. Eleven illustrations, bibliography of four titles. Ya. E.

1/1

AA0038008

Korenblum, M.G.

0482

Soviet Inventions Illustrated, Section II Electrical, Derwent,

238625 INTERVAL TIMER between pulse on input (2) and a following pulse on input (1) which passes through a delay block (8) to trigger (7). Potential proportional to time interval on detector (2) is amplified in (4) before entering zero block (5). A second input to (5) obtains linearly rising potential from integrator (6). Equality of potentials in (5) resets trigger (7).

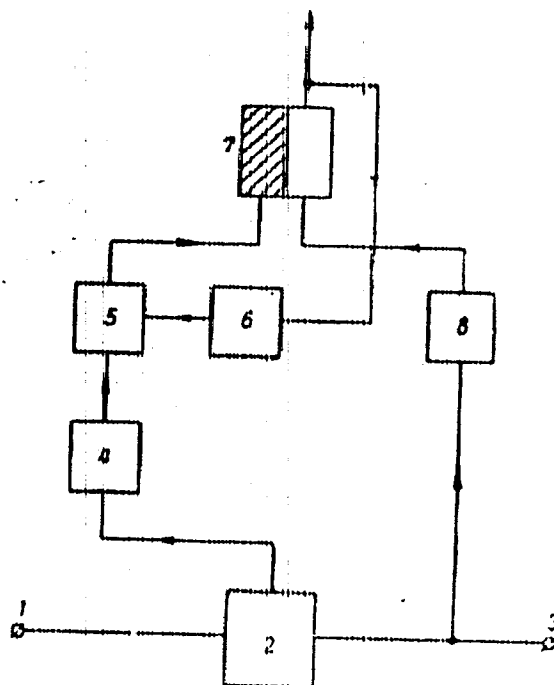
21.8.67. as 1207459/26-9, KORENBLUM, M.G. State Res. Inst. for Magnetic Recording, Radio and Television. (11.7.69) Bul. 10/10.3.69. Class 21a⁴ Int Cl. G 01r.

1/3

4

19731034

AA0038008



19731025

AA0038008

AUTHOR: Korenblum, M. G.
Vsesoyuznyy Nauchno - Issledovatel'skiy Institut Magnitnoy
Zapisi i Tekhnologii Radioveshchaniya i Televideniya

$\frac{2}{3}$

19731036

KORENCHUK, N.M.

SPRS
59263
L-73

VI-11. THERMAL DECOMPOSITION OF TRIETHYL GALLIUM IN INERT GAS AND HYDROGEN FLUORIDE

[illegible]

At the present time a representative method for obtaining films of Al_2O_3 compounds is the use of organometallic compounds and hydrides. Therefore, the mechanism of thermal decomposition of these compounds in various gas carriers is of interest. In this paper results are presented from a study of the thermal decomposition of triethyl gallium ($\text{Ga}(\text{C}_2\text{H}_5)_3$) in helium and hydrogen flows.

The method of gas chromatography was used to determine the products of pyrolysis of THC.

it was found that the basic components of the gaseous decomposition product of $\text{Ni}(\text{C}_4\text{H}_9)_2$ in the hollow flow in the temperature range of 400 to 700°C are ethylene, acetylene and ammonia. When studying the thermal decomposition of NiC_2 in the hydrogen flow in the same temperature range, the presence of only molecular methane was established.

The results of this paper permit a conclusion to be drawn regarding the selection of the TMD gun carrier to obtain a ¹¹¹g optimal film.

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USSR

UDC 669.293.054.79

GALITSKIY, N. V., BAYREKOV, M. K., DROZHNEV, V. I., CHEPRASOV, I. M.,
MEDVEDCHIKOV, E. P., BARKOVA, N. P., ZAVADOVSKAYA, V. N., SELEDTSOV, D. K.,
and KORENDYASEV, M. I.

"Reprocessing Waste Titanium and Its Alloys in a Chloride Melt"

Moscow, Metallurgiya i Khimiya Titana (Institut Titana), Metallurgiya
Publishing House, Vol 6, 1970, pp 135-140

Translation: Results are given of experimental-industrial research on the reprocessing of ungraded waste mixtures of chips from different titanium alloys by chlorinating in a chloride melt. An experimental batch of marketable titanium sponge was obtained. The characteristics of the raw material used, the chlorine gas, the coke, and the working fusion are given, along with a description of the technological conditions, the chart for preparing chips for chlorination, and the technological equipment charts for the chlorination and cleaning conversions. An analysis is made of the distribution of alloying elements in the products of chlorination. Basic expenditure coefficients, calculated per ton of industrial titanium tetrachloride, are deduced, and data are given on the quality of the $TiCl_4$ and the sponge titanium obtained. Three illustrations and one table.

1/1

Pulse Technique

USSR

UDC: 621.374.33(088.8)

BOKHUA, A. V., SPARSIASHVILI, P. D., KORENETSKIY, G. B., PODLUENYY, G. I.,
Special Design Office of Tachometry

"A Time Interval Expander"

USSR Author's Certificate No 270795, filed 7 Mar 68, published 11 Aug 70
(from RZh-Radiotekhnika, No 2, Feb 71, Abstract No 2G326 P)

Translation: This Author's Certificate introduces a device for stretching the time interval between two pulses. The device contains two Kipp oscillators and circuits for isolating the leading and trailing edges of pulses. To improve the accuracy of extension of the time interval between pulses, the outputs of the Kipp oscillators are connected to the inputs of an AND circuit whose output is connected to the circuit for isolating the trailing edge of the pulses, and to the input of an OR circuit whose output is connected to the input of the circuit for isolating the leading edge of the pulses.

1/1

1/2 C29 UNCLASSIFIED PROCESSING DATE--11DEC70
TITLE--QUESTIONS IN THE THEORY AND DESIGNING OF AN ACOUSTIC LEVEL METER
WITH A LIQUID SOUND CONDUCTOR -U-
AUTHOR--KUKENETSKII, G.D.
COUNTRY OF INFO--USSR
SOURCE--MOSCOV, PRIBORY I SISTEMY UPRAVLENIYA, NO 3, 1970, PP 26-27
DATE PUBLISHED-----70
SUBJECT AREAS--PHYSICS
TOPIC TAGS--ACOUSTIC MEASURING INSTRUMENT, ACOUSTIC ANALYSIS, QUANTUM
LIQUID, FLUIDIC DEVICE, FLUIDIC SENSOR, SCANNING SONAR, ACOUSTIC
PROPAGATION
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PRUXY FICHE NO----F070/005041/803 STEP NO--UR/0445/70/0007/003/0026/0027
CIRC ACCESSION NO--AP0142713

UNCLASSIFIED

2/2 029

UNCLASSIFIED

PROCESSING DATE--11 DEC 70

CIRC ACCESSION NO--AP0142713

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. PRESENT DAY ACOUSTIC PRESSURE LEVEL METERS COME IN TWO VERSIONS: COMPLETELY CONTACTLESS, THE ACOUSTIC SIGNAL BEING PROPAGATED FROM THE EMITTER TO THE REFLECTOR IN THE AMBIENT MEDIUM, AND SOUND CONDUCTING, WITH THE USE OF AN INTERMEDIATE MEDIUM PERFORMING A MATCHING OR PROTECTIVE FUNCTION. IN ADDITION TO THE MOST FREQUENTLY ENCOUNTERED VERSION OF SOUND CONDUCTOR, NAMELY A SOLID ROD OF ROUND CROSS SECTION OR OF SPECIAL SHAPE, IN ACOUSTIC CONTACT WITH AN ELECTROACOUSTIC CONVERTER ON ONE END AND THE TESTED MEDIUM ON THE OTHER, THERE HAS ALSO BEEN PROPOSED A METHOD OF ACOUSTIC LEVEL MEASUREMENT WITH THE USE OF A LIQUID SOUND CONDUCTOR. AMONG THE ADVANTAGES OF A FLUIDIC ACOUSTIC DATA UNIT IS ITS ABILITY TO PERFORM SCANNING MEASUREMENTS, PRIMARILY IN THE FIELD OF HYDROACOUSTICS. THE ARTICLE PRESENTS RESULTS OF INVESTIGATION OF THE PROCESS OF THE PROPAGATION OF ACOUSTIC OSCILLATIONS ALONG A JET TYPE SOUND CONDUCTOR, SOME CALCULATION RELATIONSHIPS PRESENTED, ERRORS ARE ESTIMATED, A DESCRIPTION IS GIVEN OF AN ACOUSTIC IMMERSION TYPE LEVEL METER IN APPLICATION TO A BLAST FURNACE. IN THE DESCRIBED INSTRUMENT, THE ACOUSTIC SIGNAL PASSES ALONG A DYNAMIC CYLINDRICAL FLUIDIC SOUND CONDUCTOR WITH A FREE SURFACE, IN OTHER WORDS, ALONG A TUBE OF LIQUID WITH AN ACOUSTICALLY SOFT WALL. FOR PRACTICAL PURPOSES, ONLY CYLINDRICALLY SHAPED LIQUID JETS CAN BE PROVIDED.

UNCLASSIFIED

Construction

USSR

UDC 624.042.41:534.1

KORENEV, B. G., Doctor of Technical Sciences (Moscow Construction Engineering Institute imeni V. V. Kuybyshev) and REZNIKOV, L. M., Candidate of Technical Sciences (Dnepropetrovsk Department of the Institute of Mechanics, Academy of Sciences, Ukrainian SSR

"Random Cross-Wind Oscillations of Tower-Type Buildings With Dynamic Dampers"

Moscow, Stroitel'naya Mekhanika i Raschet Sooruzheniy, No 2, 1973, pp 7-11

Abstract: The present paper, which is a continuation of an article published earlier in the same journal (No 6, 1971), deals with the forced oscillations of tower-type buildings with an aerodynamically unstable shape of the cross-stream section, under the influence of random pulsations, in a subcritical wind-velocity zone in which the self-oscillations of the buildings cannot become stabilized. An investigation is made of the influence of nonlinear aerodynamic forces and a dynamic damper upon the oscillation parameters of the building. A numerical example is given. 1 figure. 11 references.

1/1

USSR

UDC 624.04:534.11

KORENEV, B. G., Moscow, REZNIKOV, L. M., Dnepropetrovsk

"Quenching of Vibrations of Tower Structures Under Seismic Disturbances"

Podol'sk, Stroitel'naya mekhanika i raschet sooruzheniy, No. 5, 1971, pp 1-5

Abstract: A method for reducing random vibrations of tower structures with the aid of dynamic dampers is discussed. Data are presented on the effectiveness of the damping of random vibrations of tower structures under seismic disturbances and recommendations made in a previous article by the authors on the optimization of the parameters of dynamic dampers are tested. The previous article presented exact and approximate methods for solving the problem of the vibrations of tower structures with two dynamic dampers under pulsations of the impact pressure of wind. The effectiveness of reducing vibrations of tower structures with the aid of two dynamic dampers in each of two mutually perpendicular planes is investigated and the parameters of the dampers are optimized from the condition of minimum dispersion of displacement of the upper end and the bending moment in the lower cross section of the structure. It is noted that the same dampers placed in a tower structure will reduce vibrations of the structure caused not only by seismic disturbances but also by pulsations in the impact pressure of wind, wind resonance and other dynamic effects.

1/1

USSR

UDC 621.372.6

KRENEV, I.L., YUDIN, L.A.

"Radiation Instability Of Electron Rings In A Waveguide"

Izv.VUZ:Radiofizika, Vol XV, No 2, Feb 1972, pp 272-282

Abstract: The stability of the oscillations is considered of an infinitesimally thin electron ring in a cylindrical metal waveguide, the generatrix of which is parallel with the axis of the ring, and which has ideally conducting walls. The azimuthal and transverse oscillations of the ring are studied. Expressions are found for the increments of unstable harmonics in the vicinity of waveguide resonances. The results are presented of numerical calculations of the increments. The authors are deeply appreciative to N.L. Levin for helpful discussions and great attention to the work. 5 fig. 6 ref. Received by editors, 27 Apr 1971.

1/1

USSR

UDC 621.372.8

KORENEV, I. L., YUDIN, L. A.

"Radiation Instability of Electron Rings in a Wave Guide"

Gor'kiy, Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, Vol XV, No 2, 1972, pp 272-282

Abstract: The stability of the oscillations of an electron ring inside a metal tube with ideally conducting walls -- a cylindrical wave guide the generatrix of which is parallel to the ring axis -- was investigated. Expressions were obtained for the unstable harmonic increments. A study was made of the instability in the vicinity of the wave guide resonances. Some numerical results of calculating the increments are presented, and analysis of them shows that the radiation increments of the azimuthal oscillations always significantly exceed the increments of the transverse oscillations. Special attention is given to the ultrarelativistic case in the study.

- END -

1/1

CS01 1860-W

UNCLASSIFIED
TITLE--SYNTHESIS OF ALKYL SALICYLATE ADDITIVES BASED ON P-CRESOL -U-
AUTHOR--(US)--MONASTYRSKIY, V.N., TSVETKOV, G.N., DMITRIYEVA, N.A., KAZAKOV,
YE.I., KORENEV, K.D.
COUNTRY OF INFO--USSR

SOURCE--KHIM. TEKHNOL. TOPL. MASEL 1970, 15(3), 17-19

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY, MATERIALS

TOPIC TAGS--SALICYLATE, ALKYLATION, CRESOL, PETROLEUM FRACTION, CHEMICAL
SYNTHESIS, ANTIOXIDANT ADDITIVE, DETERGENT ADDITIVE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY FILE/FRAME--1972/1491

STEP NO--02/0065/70/015/003/0017/0019

CIRC ACCESSION NO--AP0112485

UNCLASSIFIED

2/2 015

UNCLASSIFIED

PROCESSING DATE--02JCT70

IRC ACCESSION NO--AP0112485

ABSTRACT/EXTRACT--(U) GP-9- ABSTRACT. THE ADDITIVES, IMPARTING HIGH DEFENSANT, ANTIOXIDANT, AND ANTISCALING PROPERTIES TO OILS, WERE PREPARED BY ALKYLATING P-CRESOL WITH AN OLEFIN FRACTION B. 240-320DEGREES, OBTAINED BY WAX CRACKING, YIELDING 63.6PERCENT ALKYL P-CRESOL. THE LATTER WAS CARBOXYLATED TO OBTAIN THE ALKYL SALICYLIC ACID, WHICH WAS TREATED WITH CA(OH) SUB2 TO GIVE THE ADDITIVE.

USSR

UDC 591.111.2

KORENEVA, L. G. and GAYDUK, V. I., Institute of Radio Technology and Electronics, Academy of Sciences USSR, Moscow

"The Theoretical Possibility That Ultrahigh-Frequency Oscillations Produce a Resonant Effect in Hemoglobin"

Moscow, Doklady Akademii Nauk SSSR, Vol 193, No 2, 1970, pp 465-468

Abstract: It has been noted that irradiation at one wavelength produces an effect upon a biological specimen which is completely different from that produced by irradiation at a slightly different wavelength, although the reasons for this phenomenon are not clear. When the wavelength is close to the natural frequency of the irradiated dipole group, a resonant effect may take place, provided that this is the only group in the molecule's active center responsible for the inherent structure and function of the substance and provided this group has a large dipole moment and an adequate freedom of transition. In the present study, the resonant effect that may be produced in hemoglobin was studied. The only relatively free and functionally crucial polar molecule in the vicinity of the heme is histidine 57. This amino acid can approach the iron of the heme or the propionic groups and thus either break or form weak bonds of the Fe-O-H type. Irradiation disrupts the natural equilibrium of this reaction by causing a drastic

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USSR

KORENEVA, L. G., et al. Doklady Akademii Nauk SSSR, Vol 193, No 2, 1970, pp 465-468

shift in one direction or another. The exact mechanism of this resonant effect is described by means of mathematical equations and models.

Cytology

USSR

UDC 615.361.018.46:612.419-085.23

KORENEVSKAYA, M. I., RAPOPORT, R. I., (Deceased) and TEREENT'YEVA, E. I.,
Cytology Laboratory, Central Institute of Hematology and Blood Transfusion,
Ministry of Health USSR, and Diploid Cell Laboratory, Institute of Virus
Preparations, Ministry of Health USSR, Moscow

"Culturing Monkey Bone Marrow in Synthetic Media With Organic Supplements
(Deep Cultures)"

Moscow, Laboratornoye Delo, No 8, 1970, pp 466-469

Abstract: Bone marrow scraped from the epiphyses of the femoral and humeral
bones of monkeys was cultured in Eagle's medium or medium 199 with various
concentrations of bovine serum and lactalbumin hydrolysate added. Fresh
medium, serum, and lactalbumin hydrolysate were replaced every 2 to 5 days.
Macrophages, polyblasts, and fibroblast-like cells appeared on the glass
within 24 hours and constituted 29.2% of all cells in the culture after 72
hours. Of the phagocytizing cells observed on the 3rd day after explantation,
49% were polyblast-macrophages, 1% myelocytes, 2% metamyelocytes, 19% stab
neutrophils, and 29% segmentonuclear neutrophils. Enrichment of the syn-
thetic medium with organic supplements (bovine serum and lactalbumin hydro-
lysate) promoted cell growth and adherence without affecting differentiation.
1/1

USSR

UDC 613.632:661.631

OZEROVA, V. V., RUSAKOVA, G. S., and KORENEVSKAYA, S. P., Institute of Labor Hygiene and Occupational Diseases, Academy of Medical Sciences USSR

"The Effect of Yellow Phosphorus on the Human Organism Under Conditions of Present-Day Production of Phosphorus and of Salts Derived From It"

Moscow, Gigiyena Truda i Professional'nyye Zabolevaniya, Vol. 15, No 11, Nov 71, pp 19-21

Abstract: A total of 337 workers exposed for 3-5 years to work in the production of yellow phosphorus were examined. They had been exposed to low concentrations of P at the maximum permissible level or slightly above it. Of the workers examined, 119 were evidently in good health, while the rest complained of headaches, pain in the region of the heart, low appetite, and recurrent pain in the region of the epigastrium and on the right side below the ribs. Disturbances of the functional state of the liver with respect to the pigment and/or protein function were found in a large number of cases, while marked symptoms of toxic hepatitis were generally absent. Densitographic investigation of the bone structure disclosed some changes in it that could be ascribed to the action of phosphorus. Determinations of Ca and phosphoric acid in the blood serum indicated that the content of Ca was normal in every case, while that of P in the blood serum was above normal in 38 cases.

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USSR

UDC 632.4:582.281.14

BARSKAYA, T. A., and KORENEVSKAYA, T. YU., Institute of Biology, Academy of Sciences USSR, Laboratory of Plant Physiology Karelian Branch

"Conditions Favoring the Infection of Potato Tubers by Incompatible Races of *Phytophthora infestans* (Mont.) D By"

Leningrad, Mikologiya i Fitopatologiya, Vol 5, No 2, 1971, pp 143-148

Abstract: Cooling and warming of potato tubers and the effects of either treatment on the content of phenols and carbohydrates were studied in regard to changes in resistance to infection with *Phytophthora infestans* (Mont.) d By. Ten potato types and two hybrids were studied for their resistance during the vegetation period as well as during storage. The cooling tests on the tubers were carried out in a specially constructed chamber, and warming of the tubers was done by means of an electrothermostat. After infection with suspensions of Ph. infestans, both control and experimental tubers were maintained at 20°C in air-conditioned chambers for a period of 7-8 days. The effect of the temperature regime on the resistance to *Phytophthora* infection during inoculation on peel, on secondary eyelets, and on an incision was studied. The susceptibility of tubers to Ph. infestans species changed with the extent of winter storage. After termination of the period, resistance

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- 24 -

USSR

BARSKAYA, T. A., and KORENEVSKAYA, T. YU., Mikologiya i Fitopatologiya, Vol 5, No 2, 1971, pp 143-148

to incompatible races of the pathogen may be lost. Warming or cooling of the tubers prior to infection produces disease of certain types of tubers. With decrease in resistance as a result of the temperature regime, an increase in the content of phenols and dissolved carbohydrates was observed in tubers. The conditions for infiltration of Ph. infestans through eyelets into the tubers are enhanced by cooling as well as by warming. This infiltration leads to self-warming of the tubers, and this is considered one of the reasons for the sharp increase in potato tuber infection during transport. Infection can proceed also by fungus spores adhering to tubers carrying soil particles.

2/2

USSR

UDC 622.4

BARSKAYA, T. A., and KORENEVSKAYA, T. YU., Institute of Biology, Karelian Branch, Academy of Sciences USSR, Petrozavodsk

"Resistance of Potato Plants to Phytophthora Depending on the Age of the Plants and their Physiological Condition"

Moscow, Se; 'skokhozyaystvennaya Biologiya, Vol 5, No 6, 1970, pp 883-887

Abstract: Experimental infection of potatoes with the fungus *Phytophthora infestans* Mont. de Bary was conducted. Potato plants of the varieties Khibinskiy Ranniy, which is susceptible to infection, Iztades, which is relatively resistant and also the wild species *S. punae*, which is susceptible were used. It was established that the resistance of plants and parts of plants (bottom vs. top leaves) to infection decreased with increasing deterioration due to age. Towards the end of the growing period, the resistance decreased at the time when the leaves became yellow. Iztades plants were less susceptible to age deterioration than those of Khibinskiy Ranniy. *S. punae* plants did not show variations of resistance with age, because their leaves did not yellow - the bottom leaves became brown and immediately fell off. High resistance to infection among plants of the same variety was associated with an increased content of protein, starch, and

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USSR

BARSKAYA, T. A., and KORENEVSKAYA, T. YU., Sel'skokhozyaystvennaya Biologiya, Vol 5, No 6, 1970, pp 883-887

soluble carbohydrates, as well as high invertase activity. With progressive yellowing of plants and of leaves left on the plants (increased susceptibility to infection), the content of starch and of soluble carbohydrates decreased. Upon infection of young plants with the fungus, the content of peroxidase in the leaves increased considerably; this reaction was weakened in old plants. Old plants susceptible to infection showed a decrease in invertase activity, which was not observed in the leaves of young plants resistant to infection. Growth of plants under field conditions at low temperatures, which delayed ageing, reduced susceptibility to infection.

2/2

- 40 -

Surgery

USSR

UDC 616.12-089-78]-059:615.33]-07:612.6.02.017.1

SOLOV'YEV, G. M., RADZIVIL, G. G., KOPCHENKO, V. A., and KENNYEVA, N. Ye.,
Institute of Clinical and Experimental Surgery, Ministry of Health USSR, and
Institute of Organ and Tissue Transplantation, Academy of Medical Sciences USSR,
Moscow

"Characteristics of the Immunobiological State of Patients Operated on Under Con-
ditions of Extracorporeal Circulation"

Moscow, Kardiologiya, Vol 10, No 10, Oct 70, pp 45-50

Abstract: The immunobiological state of patients with acquired and congenital heart diseases was determined before and after surgery performed with the help of extracorporeal circulation and without it. The criteria for determining the immunological state of the patients were: the complement titer; titer of alpha- and beta-hemagglutinins; and lymphocyte transformation into blasts in a culture of phytohemagglutinins. The effect of surgery on the complement titer was studied in 30 patients, 18 of whom were operated on with the help of extracorporeal circulation and 12 without it. Blood for titration was taken before the operation and in the early postoperative period. It was found that in 25 of the 30 patients, particularly those operated on with the help of extracorporeal

1/2

USSR

SOLOV'YEV, G. M., et al, Kardiologiya, Vol 10, No 10, Oct 70. pp 45-50

circulation, the complement titer dropped from the 0.02-0.06 presurgical norm (as determined by 100% hemolysis with a hemolytic system of a 5 percent suspension of ram erythrocytes and hemolytic serum in a triple titer) to 0.00-0.14. The titer of alpha- and beta-hemagglutinins was studied in 24 patients, 14 of whom had undergone surgery with the help of extracorporeal circulation and 10 without it. These titers were determined by the method of salt agglutination at room temperature. A sharp decline in antibody titers during the immediate postoperative period occurred, particularly in patients who were operated on with the use of extracorporeal circulation. Complete inhibition of blast formation was noted in four patients operated on with the use of artificial circulation. The data obtained permit the conclusion that heart operations, particularly when performed under conditions in which extracorporeal circulation must be used, result in a temporary decline of the immunobiological activity of the organism. Restoration normally occurs within 7-8 days after the operation.

2/2

USSR

UDC 517.9

KORENEVSKIY, D. G., Institute of Mathematics, Academy of Sciences Ukrainian SSR

"The Averaging Principle for Hyperbolic Second-order Equations With a Functionally Disturbed Argument"

Kiev, Ukrainskiy Matematicheskii Zhurnal, Vol 23, No 2, 1971, pp 147-156

Abstract: The article establishes conditions for the applicability of the averaging principle to the Cauchy-Goursat problem for differential-functional equations of the hyperbolic type with disturbance of the argument depending on the independent variables t, x , as well as the sought solution $U(t, x)$ and the partial derivatives $U'_t(t, x)$, $U'_x(t, x)$. To be more specific, the Cauchy-Goursat problem is considered for the case of an equation of the retarded type: i.e.,

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USSR

KORENEVSKIY, D. G., *Ukrainskiy Matematicheskiy Zhurnal*, Vol 23, No 2, 1971, pp 147-156

$$\frac{\partial^2 U(t, x)}{\partial t \partial x} = ef \left(t, x, U(t, x), \frac{\partial U(t, x)}{\partial t}, \frac{\partial U(t, x)}{\partial x}, U(t - \tau, x), \frac{\partial U(t - \tau, x)}{\partial t}, \frac{\partial U(t - \tau, x)}{\partial x} \right).$$

$$\tau = \tau(t, x, U(t, x), U'_t(t, x), U'_x(t, x)) \geq 0, \quad U(t, x)|_{t \in E_1} = U(t, x_0) = 0,$$

the problem being to determine the conditions under which the averaging principle is valid for the above problem. Proof of the averaging principle is given, based on the direct consideration of a partial differential equation and using the Wendroff-Bellman lemma.

2/2

- 11 -

USSR

UDC: 519.2

KOLOMIYETS, V. G., KORENEVSKIY, D. G.

"Investigation of Nonlinear Oscillations in a First Order System With Random Delay"

Tr. Seminara po teorii differents. uravneniy s otklonayushch. argumentom. Un-t druzhby narodov imeni Patrisa Lumumby (Works of the Seminar on the Theory of Differential Equations With Deviating Argument. University of Friendship Between Nations imeni Patrice Lumumba), 1972, 8, pp 100-108 (from *Elektronika*, No 10, Oct 72, abstract No 10V120 [authors' abstract])

Translation: A study is made of the perturbation of periodic motions of a quasilinear system by random delay. In particular, an investigation is made of the behavior of stationary density of the joint distribution of the amplitude and phase of oscillations by means of the asymptotic Krylov-Bogolyubov method and the method of the Fokker-Planck-Kolmogorov equation.

1/1

1/2 031 UNCLASSIFIED PROCESSING DATE--27NOV70
TITLE--HEMATITE CONCRETE FOR SHIELDING FROM HIGH NEUTRON FLUXES -U-

AUTHOR--(05)-DUBROVSKIY, V.B., IBRAGIMOV, SH.SH., KORENEVSKIY, V.V.,
LADYGIN, A.YA., PERGAMENSHCHIK, V.K.
COUNTRY OF INFO--USSR

SOURCE--AT. ENERG. 1970. 28(3), 258-60

DATE PUBLISHED-----70

SUBJECT AREAS--MATERIALS, NUCLEAR SCIENCE AND TECHNOLOGY

TOPIC TAGS--CEMENT, NEUTRON SHIELDING, IRON ORE, MECHANICAL
STRENGTH/(U)298 CEMENT, (U)2134 HEMATITE ORE, (U)298 HEMATITE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3004/0752

STEP NO--UR/0089/70/028/003/0258/0260

CIRC ACCESSION NO--AP0131247

UNCLASSIFIED

2/2 031

UNCLASSIFIED

PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0131347

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. IRRADN. OF HEMATITE CONCRETE (PREPD. USING CEMENT 298, HEMATITE ORE 2134, FINELY DISPERSED HEMATITE 298, AND H SUB2 O 300 KG, AND HAVING A BULK D. OF 3030 KG-M PRIME 3) WITH AN INTEGRATED DOSE OF 2.6 TIMES 10 PRIME 20 N-CM SUB2 AT 250DEGREES CAUSES EXPANSION OF THE SAMPLES BY 1.2-1.5PERCENT, BUT FURTHER INCREASED IN THE DOSE (LESS THAN OR EQUAL TO 6.1 TIMES 10 SUB20 N-CM SUB2) AND TEMP. OF IRRADN. (350-400DEGREES) REDUCES THE EXPANSION TO ONLY 0.7-0.9PERCENT. THE IRRADN. REDUCES THE WT. OF THE SAMPLES BY UP TO 4PERCENT AT A DOSE OF (5-6) TIMES 10 PRIME 20 N-CM SUB2 AND REDUCES SOMEWHAT THE THERMAL COND., MECH. STRENGTH, AND DEFORMATION MODULI OF THE CONCRETE.

UNCLASSIFIED

USSR

UDC 621.039.52:691.3

DUBROVSKIY, V.S., ZHOLDAK, G.I., KORENEVSKIY, V.V., FERMANENKONIK, B.K.,
PISREVALOV, V.S.

"Concrete Using Iron-Ore Aggregates Under Conditions Of High Radiation--
Temperature Loads"

V sb. Vopr. fiz. zashchity reaktorov (Problems Of Physical Shielding Of Reactors-
Collection Of Works), Issue 5, Moscow, Atomizdat, 1972, pp 262-273 (from
RZh:Yadernyye reaktory, No 6, June 1972, Abstract No 6.50.125)

Translation: Portland cement hematitic concrete has good protective properties
even with an absence of water in it. It is sufficiently radiation resistant in
the presence of cumulative doses up to $7 \cdot 10^{20}$ n/cm². A significant change of
stability, modulus of deformation, thermal conductivity, and coefficient of
temperature expansion is not displayed. The expansion is discussed of concrete
during irradiation which reaches 1--2 percent (linear) with a cumulative dose of
(2--7) $\cdot 10^{20}$ n/cm², which it is necessary to take into account during planning
of the construction of shielding from this material. With a temperature close
to 1000° C portland cement hematitic concrete preserves its properties to a
sufficient degree. It is shown experimentally that it is possible to use such
concrete in shielding at temperatures up to 800° C. 5 ill. 5 tab. 6 ref.

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USSR

UDC: 539.4

YZTSENKO, V. K., KORENEVSKIY, Ye. Ya., IVSHCHENKO, L. I., Zaporozh'ye

"Influence of Heat Treatment and Surface Quality on Endurance of EI961 Steel"

Kiev, Problemy Prochnosti, No 8, Aug 73, pp 65-70.

Abstract: The influence of grinding, polishing, diamond smoothing and subsequent tempering on the formation of the physical-mechanical characteristics of the surface layer and the fatigue strength of EI961 steel is studied. It is established that diamond smoothing significantly increases the endurance of EI961 steel and neutralizes the harmful influence of stress concentrators in the form of a chamfer, notch or press fit.

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- 65 -

USSR

UDC 621.787.4:621.921.34:539.432

YATSENKO, V. K., ~~KORENEVSKIY, YE. YA.~~, and BONDAR', M. P. Machine-Building Institute imeni V. Ya. Chubar'

"The Influence of Diamond Smoothing Upon the Surface Quality and Fatigue Strength of Steel EI961"

Kiev, Problemy Prochnosti, No 1, Jan 72, pp 105-108

Abstract: The article deals with the influence of grinding, polishing and diamond smoothing upon the surface quality and fatigue strength of steel EI961 (Kh12N2VMF). It is shown that diamond smoothing is accompanied by the formation of a high degree of surface finish and a favorable microrelief, increases the depth and degree of cold hardening, and imparts compressive residual stresses to the surface layer. This considerably increases the fatigue strength of the material in comparison to that obtained by grinding and polishing. The obtained research results demonstrate the expediency of using diamond smoothing for the final machining of shafts made of steel EI961 after grinding. It is thereby possible to replace labor-intensive grinding and polishing without diminishing the necessary operational properties of the parts.

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USSR

UDC 539.43

YATSENKO, V. K., KORENEYSKIY, YE. YA., and IVSHCHENKO, L. I., Zaporozh'ye
Machine-Building Institute imeni V. Ya. Chubar'

"The Influence of Machining Methods Upon the Sensitivity of Steel EI961 to
Stress Concentration at Alternating Loads"

Kiev, Problemy Prochnosti, No 2, Feb 72, pp 107-110

Abstract: With the aim of increasing the reliability and longevity of machine parts operating under heavy loads, research was conducted to determine the influence of machining methods (Fine turning, grinding, polishing, rolling by rollers, and diamond smoothing) upon the resistance of steel EI961 (1Kh12N2VFS) to fatigue failure in the presence of stress concentrators made in the form of fillets, grooves, and radial apertures. It was established that the most effective methods of machining machine parts, which neutralize the unfavorable influence stress concentrations upon the durability of the material are diamond smoothing and rolling by rollers. Three tables, 2 figures, 2 references.

1/1

USSR

UDC: 621.51-226.2:620.169.1:519.24

KORENEVSKIY, Ye. Ya., YATSENKO, V. K., Zaporozh'ye

"Selection of An Effective Vibration Tumbling Mode For Hardening of Parts of VT8 Titanium Alloy"

Kiev, Problemy Prochnosti, No 11, 1970, pp 106-110

Abstract: The influence of the duration of vibration tumbling on the roughness, work hardening, residual stresses, endurance and damping properties of parts made of VT8 titanium alloy is studied. It is established that a change in the physical and mechanical properties of the surface layer significantly influences the logarithmic decrement of oscillations.

1/1

USSR

UDC 629.7.036.3:621

KORENEVSKIY, Ye. Ya., and YATSENKO, V. K., Zaporozh'ye

"Effect of Basic Operations of Machining a Compressor Vane Fin Made of 1Kh17N2 Steel on Surface Quality and Durability"

Kiev, Problemy Prochnosti, No 3, March 1971, pp 15-20

Abstract: This paper contains the results of a study of the surface quality and durability of operating compressor vanes made of steel 1Kh17N2 after the basic operations of machining the fin: milling, belt grinding, final manual polishing, polishing and vibration tumbling. The finish class, surface microhardness, depth of work-hardening and degree of work-hardening were determined after each operation. The data demonstrated that the investigated machining techniques are accompanied by the formation of surfaces of different quality -- the best with vibration tumbling and the least stable in the case of manual mechanical polishing. Extensive fatigue testing of several specimens of the vanes under overloads provided results which were processed by statistical methods with the application of linear regression and correlation analyses. Complete fatigue diagrams were plotted, and empirical relations were derived from them.

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USSR

KORENEVSKIY, Ye. Ya., and YATSENKO, V. K., Problemy Prochnosti, No 3, March 1971, pp 15-20

From the study it can be concluded that the preliminary operations of milling and grinding greatly reduce the resistance of the steel to fatigue breakdown in the case of cyclic overstressing; polishing sharply increases this index. Vibration tumbling not only increases durability but also significantly lowers the scattering of the service life.

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- 39 -

Acc. Nr.:

ARC106137- KORENFELD

V. I.

Ref. Code: UR 0000

JPRS 49937.

Accuracy of GAL-OMPO-2 Gravimeter on Surface Vessel

/From: Moscow, Referativnyy Zhurnal, Geofizika, Svodnyy Tom, No 1, 1970,
IG171-DEP/

The authors evaluated the accuracy of operation of the GAL-OMPO-2 gravimeter during long-term ocean tests. The article describes the method for preparing the instrument for operation, making gravimetric measurements on a surface vessel and processing the observations. The total random observation error is determined, as well as the magnitude of the error dependent only on the gravimeter.

(Abstract: "Evaluation of the Accuracy of the GAL-OMPO-2 Gravimeter Operating on a Surface Vessel," by M. Ye. Artem'yev, E. A. Boyarskiy, V. I. Korenfel'd, Ye. I. Magnitskaya and V. A. Tulin; Moscow, Morsk. Avtomatizir. Gravimetr i yego Rabota, 1969, pp 141-161)

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Acc. Nr.: AR0106136

KORENFELD V. I.

Ref. Code: UR0000

JPRS 49937

Statistical Studies of GAL-OMPO-2 Gravimeter

/From: Moscow, Referativnyy Zhurnal, Geofizika, Svochnyy Tom, No 1, 1970,
IG167-DEP7

This paper gives the results of studies of the stability and accuracy of operation of a GAL-OMPO-2 gravimeter over a long period in dependence on various factors. Some recommendations are made on improving the stability and increasing the accuracy of this instrument.

(Abstract: "Statistical Investigations of GAL-OMPO-2 Gravimeter," by V. I. Korenfel'd and V. A. Tulid; Moscow, Morskiye Avtomatizir. Gravimetr i yego Rabota, 1969, pp 87-108)

Reel/Frame
19881361

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4

Acc. Nr:

№0048208

Abstracting Service:

CHEMICAL ABST. 5-70

Ref. Code:

GE 900 6

K

102097r Basic trends of technical advances in comminuting and grinding equipment. Korenkov, G. L.; Reunov, S. V.; Smirnova, T. N. (Tech. Hochschule von Guericke, Magdeburg, E. Ger.). *Chem. Tech. (Leipzig)* 1970, 22(2), 77-83 (Ger). A review is given with 39 refs. on primary and fine crushers and mills made in the USA. BVJG

REEL/FRA
19791921

Acc. Nr:

AP0046634

Abstracting Service:

CHEMICAL ABST. 4-70

Ref. Code:

4R 6131

82444w Large-scale magnesite and chromium magnesite refractories for open-hearth furnaces. Cherepov, N. V.; Simonov, K. V.; Korotkov, V. N.; Beryudinov, A. A. (USSR). *Ogneupory* 1970, 35(1), 14-15 (Russ). The attempt was made to substitute hitherto used refractory bricks $230 \times 115 \times 65$ mm for bricks of size $300 \times 150 \times 65$ mm. The performance of the press is increased by 4-5 ton/day. Also, the efficiency of bricklayers building blast furnaces with larger bricks rises 10-15%. In addn., with larger bricks the no. of crannies in brick-work is diminished in the horizontal direction which improves the servability of the brick-work. J. Jindra

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19781946

18

AA0040694-

KORENKOV V.N.

UR 0482

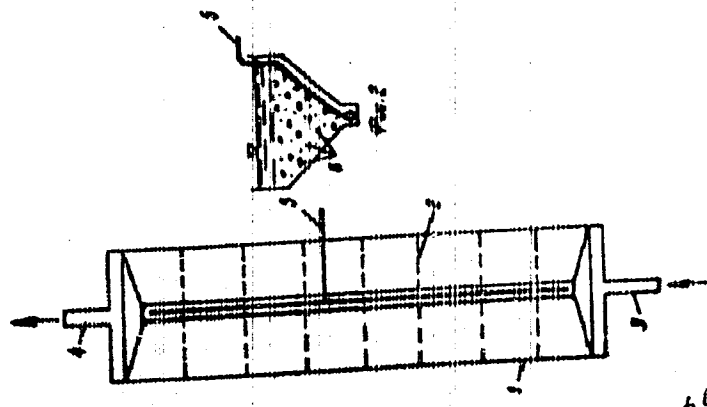
Soviet Inventions Illustrated, Section I Chemical, Derwent, 1-70

241304 AERATION TANK, e.g. for cleaning waste water, sewage, etc., consists of a triangular body (1) along the length of which the perforated dividing plates (2) are located at intervals. The water, etc. to be treated is admitted at one end, and withdrawn from the other. The air-distribution system (5) is fed from the base. The whole length of the trough is filled with a highly-porous material having a density of less than 1 g/cm.³. After having gone through a mechanical cleaning process, the fluid to be treated is admitted and allowed to mingle with the air coming up from the base of the trough. Activated sludge containing both microflora and microfauna develops inside the pores of the filler material and in conjunction with the rate of aeration and rate of flow of the fluid under treatment, effects a continuous purification process.

19.7.66 as 1091080/23-26.S.V.YAKOVLEV et al(15.8.69)
Bul 13/1.4.69. Class 85c. Int.Cl. C 02 c.

19750316

AA0040694



AUTHORS:

Yakovlev, S. V.; Voronov, Yu. V.; Koren'kov, V. N.; and
Karyukhina, T. A.

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19750317

1/2 007 UNCLASSIFIED PROCESSING DATE--04DEC70
TITLE--CHLOROMETHYLATION OF DECYL ALCOHOL USING AN AQUEOUS SOLUTION OF
FORMALDEHYDE -U-
AUTHOR--(03)-KORENKOVA, O.P., LUTSENKO, V.A., KOSHMAN, N.L.
COUNTRY OF INFO--USSR
SOURCE--KHIM. PROM. (MOSCOW) 1970, 46(5), 340-1
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--METHYLATION, ALCOHOL, CHEMICAL SYNTHESIS, FORMALDEHYDE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3008/0891 STEP NO--UR/0064/70/046/005/0340/0341
CIRC ACCESSION NO--AP0137919
UNCLASSIFIED

2/2 007 UNCLASSIFIED PROCESSING DATE--04DEC70
CIRC ACCESSION NO--AP0137919
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. CLCH SUB2 DC SUB10 H SUB21 WAS
PREPD. OPTIMALLY IN 90PERCENT YIELD WITH 94-5PERCENT CONVERSION OF C
SUB10 H SUB21 OH BY ADMITTING HCL AT A RATE OF SIMILAR TO 0.8 L.-HR INTO
AN AQ. 1:1.1-1.15 C SUB10 H SUB21 OH,CH SUB2 O MIXT. AT 15-20DEGREES.

UNCLASSIFIED

172 025
TITLE--BEHAVIOR OF NUCLEON NUCLEUS INTERACTION CROSS SECTION IN THE HIGH
ENERGY REGION -U-
AUTHOR-(02)-BALASHOV, V.V., KURENMAN, G.YA.
COUNTRY OF INFO--USSR
SOURCE--PHYS. LETT. B. 1970, 31(5), 310-12
DATE PUBLISHED-----70
SUBJECT AREAS--PHYSICS, SPACE TECHNOLOGY
TOPIC TAGS--NUCLEON INTERACTION, NUCLEUS, ARTIFICIAL EARTH SATELLITE, HIGH
ENERGY INTERACTION, PARTICLE CROSS SECTION/101 PROTON SATELLITE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--2000/1051
CIRC ACCESSION NO--AP0124709
UNCLASSIFIED
PROCESSING DATE--23OCT70
K

2/2 025

UNCLASSIFIED

PROCESSING DATE--23 OCT 79

CIRC ACCESSION NO--AP0124709

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE DATA ON THE π NUCLEUS
INTERACTION IN THE 20-600 GEV RANGE OBTAINED IN EXPTS. ON THE PROTON.
SATELLITES ARE ANALYZED IN TERMS OF THE R. J. GLAUBER MODEL (1967).
ESTS. OF POSSIBLE INCREASE OF THE π ,N CROSS SECTION WITH ENERGY ARE
GIVEN. FACILITY: INST. NUCL. PHYS., MOSCOW STATE UNIV., MOSCOW,
USSR.

UNCLASSIFIED

1/2 012 UNCLASSIFIED PROCESSING DATE--27NOV70
TITLE--BEHAVIOUR OF NUCLEON NUCLEUS INTERACTION CROSS SECTION IN THE HIGH
ENERGY REGION -U-
AUTHOR--(02)--BALASHOV, V.V., KORENMAN, G.YA. K

COUNTRY OF INFO--USSR

SOURCE--PHYS. LETTERS (NETHERLANDS), VOL. 310, NO. 5, P. 310-12 (2 MARCH
1970)
DATE PUBLISHED--02MAR 70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--NUCLEON INTERACTION, EXCITATION CROSS SECTION, HIGH ENERGY
INTERACTION, NUCLEON

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--1992/0448

STEP NO--NE/0000/70/000/005/0310/0312

CIRC ACCESSION NO--AP0111641

UNCLASSIFIED

2/2 012

UNCLASSIFIED

PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0111641

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE DATA ON THE PROTON NUCLEUS INTERACTION IN THE 20-600 GEV RANGE OBTAINED IN EXPERIMENTS ON THE 'PROTON' SATELLITES HAS BEEN ANALYZED IN TERMS OF THE GLAUBER'S MODEL. ESTIMATES OF POSSIBLE INCREASE OF THE NUCLEON NUCLEON CROSS SECTION WITH ENERGY ARE GIVEN. FACILITY: MOSCOW STATE UNIV., USSR.

UNCLASSIFIED

1/2 019
TITLE—MOLECULAR COMPLEXES OF PHENOL WITH SOME ORGANIC SUBSTANCES -U-
AUTHOR—KORENMAN, YA.I.
COUNTRY OF INFO—USSR
SOURCE—ZH. OBSHCH. KHIM. 1970, 40(2), 353-6
DATE PUBLISHED—-----70
SUBJECT AREAS—CHEMISTRY
TOPIC TAGS—ORGANIC COMPLEX COMPOUND, PHENOL, THERMODYNAMIC
CHARACTERISTIC, ALCOHOL, ETHYLENE GLYCOL, SULFONIC ACID, AMINE, SOLVENT
EXTRACTION
CONTROL MARKING—NO RESTRICTIONS
DOCUMENT CLASS—UNCLASSIFIED
PROXY REEL/FRAME—1992/1995
CIRC ACCESSION NO—AP0112959
UNCLASSIFIED

PROCESSING DATE--09OCT70
K
STEP NO--UR/0079/70/040/002/0353/0356

2/2 019

UNCLASSIFIED

PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AP0112959

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE METHOD OF EXYN. OF PHENOL IN THE PRESENCE OF UREA, GLYCEROL, UROTROPINE, DIETHYLENE GLYCOL, AND P TOLUENESULFONIC ACID BY MEANS OF AMYL ACETATE WAS USED TO EST. THE FORMATION OF COMPLEXES BETWEEN THESE BINARY COMPONENTS. THE THERMODYNAMIC CONSTS. OF FORMATION OF THE COMPLEXES WERE, RESP., IN ORDER: 0.37-0.43, 0.13-0.14, 0.7-0.8, 0.51-0.55, AND 2.7 FOR DISTRIBUTION CONST. OF 44; USING AMYL ALC. FOR THE EXTN. (DISTRIBUTION CONST. 28.2), THE RESP. VALUES WERE 0.12, MINUS, 0.32, 0.29, AND 3.1.

FACILITY: GOR'K. SEL'SKOKHOZ. INST., GORKI, USSR.

UNCLASSIFIED

Acc. Nr: **AP0043770**

Ref. Code: UR 0056

PRIMARY SOURCE: Zhurnal Eksperimental'noy i Teoreticheskoy
Fiziki, 1970, Vol 58, Nr 3, pp 1086-1089

SMALL ANGLE MAGNETIC *ne*-SCATTERING
Baryshevskiy, V. G.; Korennaya, L. N.

Inelastic magnetic scattering of neutrons by electrons is considered. It is shown that for small angles and transfers deviations from the usual behavior of the scattered wave appear. As a consequence, the relation between the scattering differential cross section and magnetic susceptibility tensor of the substance appreciably changes.

111

REEL/FRA
19770177

21 *leh*

UDC 616.37-008.6-615.84

USSR

KOREPANOV, A. N.

"Effect of an Ultrahigh-Frequency Electric Field on Pancreatic Secretion"

Kazan', Kazanskiy Meditsinskiy Zhurnal, No 5, 1971, pp 86-87

Abstract: The effect of ultrahigh-frequency therapy on the glycemia level (on an empty stomach and on the sugar curves after a glucose load was studied in 229 patients with cholangiohepatitis, ulcers, or diabetes mellitus. A single exposure of the pancreatic region to the ultrahigh-frequency current (30 to 40 w for 30 min) increased the blood sugar in 76 of 160 patients, decreased it in 71, and had no effect in 13. The increase occurred mainly in those exhibiting an initial hypoglycemia, whereas the lowered glycemia level was observed in most of the diabetics. In 44 patients who received a double glucose load (50 g at 2- to 3-day intervals), the sugar curves after the second load were essentially the same as after the first. Twenty-five patients who took a course of treatments (10 to 12 sessions, 20 to 30 min each time) combined with special diet and water procedures showed marked improvement in the sugar levels with decrease or disappearance of the symptoms of the main disease.

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1/2 024 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--FUNCTIONAL STATE OF THE PANCREAS IN CONNECTION WITH HIGH FREQUENCY
ELECTROTHERAPY PROCEDURES -U-
AUTHOR--KUREPANOY, A.M.

COUNTRY OF INFO--USSR

SOURCE--VRACHEBNOYE DELO, 1970, NR 5, PP 41-44

DATE PUBLISHED--70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--PANCREAS, ELECTROPHYSIOLOGY, DIGESTIVE SYSTEM DISEASE, LIVER,
SECRETION, DUODENUM, ENZYME ACTIVITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3002/1731

STEP NO--UR/0475/70/000/005/0041/0044

CIRC ACCESSION NO--AP0129099

UNCLASSIFIED

2/2 024

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0129099

ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. THE EFFECT HAS BEEN STUDIED OF SINGLE PROCEDURES OF INDUCTOTHERMIA AND ULTRAHIGH FREQUENCY THERAPY APPLIED TO THE PANCREATIC REGION IN 111 PATIENTS WITH CHRONIC GASTRIC DISEASES, INTESTINAL AND HEPATOBILIARY PATHOLOGY ON THE SECRETORY FUNCTION OF THE PANCREAS. UNDER THE EFFECT OF THE ABOVE ELECTROTHERAPY PROCEDURES ALMOST 75PERCENT OF PATIENTS SHOWED AN INCREASED PANCREATIC SECRETION AND IN 50PERCENT OF PATIENTS THERE WAS AN INCREASE OF THE ENZYMATIC ACTIVITY OF THE DUODENAL JUICE. THESE EFFECTS WERE SEEN WITH CLIGOTHERMAL DOSES, WHEREAS THERMAL DOSES CAUSED IN A HALF OF ALL PATIENTS AN INHIBITORY EFFECT ON THE PANCREATIC SECRETION AND ENZYMATIC ACTIVITY OF THE JUICE. FACILITY: KLINIKA PROPEDEVTICHESKOY TERAPII, IZHEVSKOGO MEDITSINSKOGO INSTITUTA.

UNCLASSIFIED

USSR

UDC 532.132

1

GRIGOR'YEV, V. N., GULIN, B. A., YESEL'SON, E. N., ~~KOREPANOV, V. D.~~, MIKHEYEV, V. A.

"Device for Investigating Diffusion and Magnetic Characteristics of ^3He and ^3He - ^4He Solutions by the Spin Echo Method"

Trudy. Fiziko-tekhnicheskiiy institut nizkikh temperatur (Physico-technical Institute for Low Temperatures--collection of works)
Academy of Sciences, Ukrainian SSR, No. 10, 1970, pp 166-177 (from RZh-Fizika, No. 9, 1971, Abstract No. 9E36)

Translation: The description is given of a spin echo device, designed for investigating the characteristics of ^3He and ^3He - ^4He solutions in the liquid and solid states. The device permits measurements of the coefficient of diffusion, the magnetic susceptibility, and the magnetic relaxation time, as they vary in a broad range. The results of controlled measurements of the diffusion coefficient in liquid ^3He at various pressures are given. These results correspond well with the results obtained by other authors. Author's abstract.

1/1

- 75 -

1/2 020 UNCLASSIFIED PROCESSING DATE--16OCT70
TITLE--MEASUREMENT OF LONG NUCLEAR SPIN LATTICE RELAXATION TIMES -U-
AUTHOR--(02)-AUKHADEYEV, F.L., KOREPANOV, V.D.
COUNTRY OF INFO--USSR
SOURCE--PRIB. TEKH. EKSP. 1970, 1, 155-6
DATE PUBLISHED-----70
SUBJECT AREAS--PHYSICS
TOPIC TAGS--SPIN LATTICE RELAXATION, NMR SPECTRUM, RF PULSE, CALCULATION,
FLUORINE, CALCIUM FLUORIDE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--1989/1889 STEP NO--UR/0120/70/001/000/0155/0156
CIRC ACCESSION NO--AP0108219
UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--16OCT70

2/2 020

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ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. LONG DURATION T SUB1 IN NMR CAN BE MEASURED BY A SEQUENCE OF RADIO FREQUENCY PULSES WITH A DURATION DIFFERENT FROM THE 90DEGREES ONE. THE METHOD DOES NOT REQUIRE THE MEASUREMENT OF THE SIGNAL PROPORTIONAL TO EQUIL. MAGNETIC INTENSITY BUT MAKES IT POSSIBLE TO CALC. IT. A FORMULA IS DERIVED FOR CALC. OF T SUB1 ACCORDING TO SIGNALS OF FREE INDUCTION. THE METHOD WAS USED TO MEASURE T SUB1 OF NUCLEI OF PRIME19 F AND CAF SUB2 AT 1.5DEGREEESK LASTING ALMOST 800 SEC.

FACILITY: KAZAN. GDS. UNIV., KAZAN, USSR.

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UNC 621.376.33

BLAZHKEVICH, B. I., KOREPANOV, V. Ye., L'vov

"Frequency Detectors With Monotonic Voltage-Frequency Characteristic"

Kiev, Otbor i Peredacha Informatsii, Resp. Merhved. Sb.,
No 28, 1971, pp 69-73

Abstract: Two new frequency detector circuits are considered which are fairly simple and have a monotonic transfer characteristic. Experimental studies of these circuits show that the characteristics of the detectors are monotonic over a wide frequency range. Four illustrations, bibliography of three titles.

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AA0046413

UR 0482

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Soviet Inventions Illustrated, Section II Electrical, Derwent,

242493 "VOLTAGE - FREQUENCY" CONVERTER is suitable for transforming weak DC signals into frequencies as required for computer technology. Over and above the systems of frequency outlets have the advantage of being full proof, which enables these to be used for any long distance tele-control.

The suggested transforming device is static, which accounts for its advantages. The transformer operates at the entry of the generator voltage of which at that stage is "zero". The frequencies of the supporting and measuring generators are equal when stationary.

The transformer contains a supporting and measuring generators 1 and 2, a phase discriminator 3, a controlled generator 4, limiting booster 5, a frequency detector 6 and feed back 7.

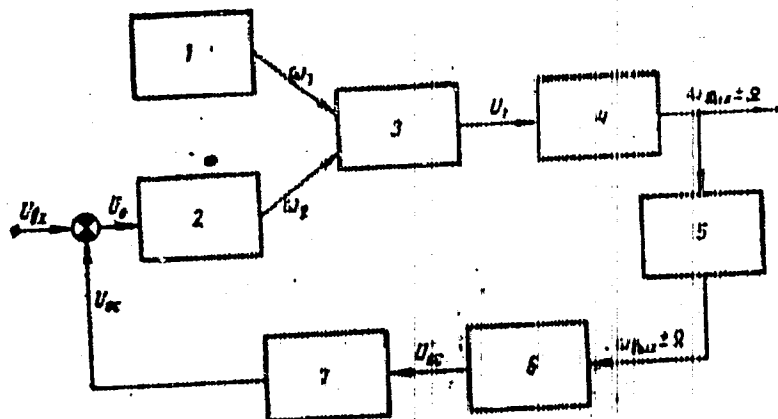
5.6.67 as 116764/26-24. V. P. KOREPANY & E. I. PAVLYUK.
PHYSICO-MECHANICAL INST. ACAD. SCIENCES URSIAN
SSR. (5.9.69) Bul 14/25.4.69. Class 42m¹. Int. Cl. G 061.

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AUTHOR—(03)—YEREMENKO, L.T., GAFUROV, R.G., KOREPIN, A.G.
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